

Features

- Compact Spool Valve
- Single and dual solenoid constructions available
- Unique design combines hard T-seals and flexible o-rings, provides bubble-tight shutoff, resistance to dirt and multimillion cycle life controlling air or inert gas
- Low Power and Intrinsically Safe construction available
 See *Special Service Pilot Valve Section for details*

Construction

| Valve Parts in Contact with Fluids | | | |
|------------------------------------|--|-----------------------------|----------------------|
| Body | Aluminum, Black Anodized | Brass | 316L Stainless Steel |
| End Cover (Spring end) | Glass-filled Polyamide | Brass | 316L Stainless Steel |
| Spool Valve Internals | Zamak, Stainless Steel, Acetal (POM), Aluminum | Brass, Acetal (POM), Delrin | |
| Pilot End Covers | Aluminum, Black Anodized | Brass | 316L Stainless Steel |
| Core Tube | Stainless Steel | | |
| Core and Plugnut | Stainless Steel | | |
| Springs | Stainless Steel | | |
| Seals and Discs | NBR | | |
| Top Disc | Nylon (PA) | | |
| Core Guide | Acetal | | |
| Seat and Seat Insert | Brass, Acetal | | |
| Shading Coil | Copper | | |
| Rider Ring (low power) | PTFE | | |

Electrical

| Standard Coil and Class of Insulation | Watt Rating and Power Consumption | | | | Spare Coil Part Number | | | |
|---------------------------------------|-----------------------------------|-------|------------|-----------|------------------------|--------|----------------|--------|
| | DC Watts | AC | | | General Purpose | | Explosionproof | |
| | | Watts | VA Holding | VA Inrush | AC | DC | AC | DC |
| F | 11.6 | 10.1 | 25 | 50 | 238610 | 238710 | 238614 | 238714 |

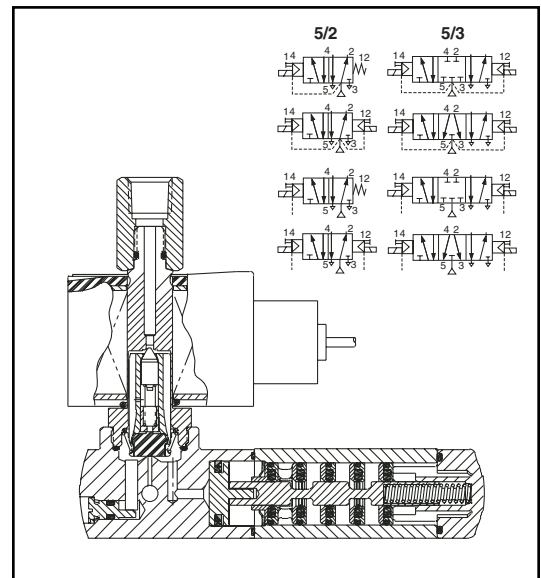
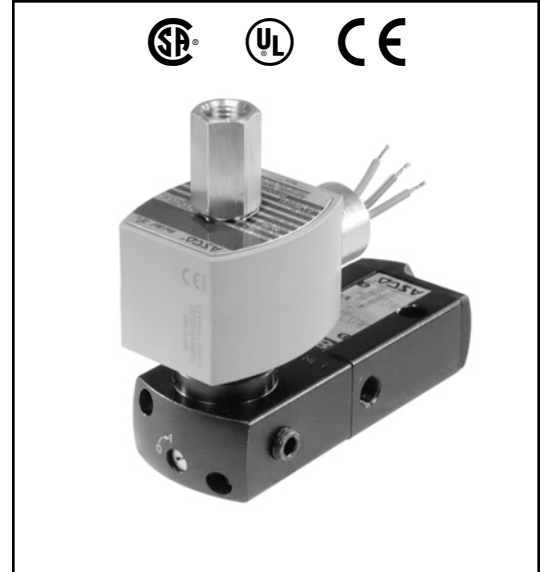
Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (110, 220 volts AC, 50 Hz).
 6, 12, 24, 120, 240 volts DC. Must be specified when ordering.
 Other voltages are available when required.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9.
 (To order, add prefix "EF" or "EV" for stainless steel) to catalog number.)

See *Optional Features Section for other available options.*



Nominal Ambient Temp. Ranges

| Body Material | Description |
|-----------------|--|
| Aluminum | AC: 5°F to 125°F (-15°C to 52°C) DC: 5°F to 104°F (-15°C to 40°C) |
| Brass | AC: -40°F to 125°F (-40°C to 52°C) |
| Stainless Steel | DC: -40°F to 104°F (-40°C to 40°C) |

Approvals

UL/CSA approvals for aluminum constructions pending. EF and EV are UL listed solenoids. CSA certified. Meet applicable CE directives.

Refer to *Engineering Section for details.*

Specifications (English units)

| Body Material | Pipe Size (in) | Orifice Size (in) | Cv Flow Factor | Single Solenoid | | | | | | Dual Solenoid | | | | | | | | | | | |
|----------------------------|----------------|-------------------|----------------|---------------------------------------|---------|---------|---------------------|-----|--------------|----------------|-------------|---------------------------------------|---------|-----|---------------------|--------------|---|----------------|-------------|--------------------------------------|----|
| | | | | Operating Pressure Differential (psi) | | | Max. Fluid Temp. °F | | | Catalog Number | Const. Ref. | Operating Pressure Differential (psi) | | | Max. Fluid Temp. °F | | | Catalog Number | Const. Ref. | Watt Rating/Class of Coil Insulation | |
| | | | | Air-Inert Gas | | | Temp. °F | | | | | Air-Inert Gas | | | Temp. °F | | | | | AC | DC |
| | | | | Min. | Max. AC | Max. DC | AC | DC | Min. | | | Max. AC | Max. DC | AC | DC | | | | | | |
| Aluminum 5/2 | 1/4 | 1/4 | .86 | 30 | 145 | 120 | 140 | 120 | 8551G417 | 1 | 30 | 145 | 120 | 140 | 120 | 8551G418 | 1 | 10.1/F | 11.6/F | | |
| Aluminum 5/3 Center Closed | | | | | | | | | - | | | | | | | 8551G467 | | | | | |
| Aluminum 5/3 Center Open | | | | | | | | | - | | | | | | | 8551G468 | | | | | |
| Brass 5/2 | | | | | | | | | EF8551G419 ① | | | | | | | EF8551G420 ① | | | | | |
| 316L Stainless Steel 5/2 | 1/2 | 1/2 | 3.7 | 30 | 145 | 120 | 140 | 120 | EV8551G421 ② | 1 | 30 | 145 | 120 | 140 | 120 | EV8551G422 ② | 1 | 10.1/F | 11.6/F | | |
| Aluminum 5/2 | | | | | | | | | 8553G417 | | | | | | | 8553G418 | | | | | |
| 316L Stainless Steel 5/2 | | | | | | | | | EV8553G421 ② | | | | | | | EV8553G422 ② | | | | | |

① Brass construction supplied standard with EF solenoid. ② Stainless steel construction supplied standard with EV solenoid.

Specifications (Metric units)





| Body Material | Pipe Size (in) | Orifice Size (mm) | Kv Flow Factor (m³/h) | Single Solenoid | | | | | | Dual Solenoid | | | | | | | | | | | |
|----------------------------|----------------|-------------------|-----------------------|---------------------------------------|---------|---------|---------------------|----|--------------|----------------|-------------|---------------------------------------|---------|----|---------------------|--------------|---|----------------|-------------|--------------------------------------|----|
| | | | | Operating Pressure Differential (bar) | | | Max. Fluid Temp. °C | | | Catalog Number | Const. Ref. | Operating Pressure Differential (bar) | | | Max. Fluid Temp. °C | | | Catalog Number | Const. Ref. | Watt Rating/Class of Coil Insulation | |
| | | | | Air-Inert Gas | | | Temp. °C | | | | | Air-Inert Gas | | | Temp. °C | | | | | AC | DC |
| | | | | Min. | Max. AC | Max. DC | AC | DC | Min. | | | Max. AC | Max. DC | AC | DC | | | | | | |
| Aluminum 5/2 | 1/4 | 6.4 | .75 | 2 | 10 | 8.2 | 60 | 48 | 8551G417 | 1 | 2 | 10 | 8.2 | 60 | 48 | 8551G418 | 1 | 10.1/F | 11.6/F | | |
| Aluminum 5/3 Center Closed | | | | | | | | | - | | | | | | | 8551G467 | | | | | |
| Aluminum 5/3 Center Open | | | | | | | | | - | | | | | | | 8551G468 | | | | | |
| Brass 5/2 | | | | | | | | | EF8551G419 ① | | | | | | | EF8551G420 ① | | | | | |
| 316L Stainless Steel 5/2 | 1/2 | 13 | 3.15 | 2 | 10 | 8.2 | 60 | 48 | EV8551G421 ② | 1 | 2 | 10 | 8.2 | 60 | 48 | EV8551G422 ② | 1 | 10.1/F | 11.6/F | | |
| Aluminum 5/2 | | | | | | | | | 8553G417 | | | | | | | 8553G418 | | | | | |
| 316L Stainless Steel 5/2 | | | | | | | | | EV8553G421 ② | | | | | | | EV8553G422 ② | | | | | |

① Brass construction supplied standard with EF solenoid. ② Stainless steel construction supplied standard with EV solenoid.

Dimensions inches (mm)

| Series | 8551 | 8553 |
|--------|------------|------------|
| NPT | 1/4 | 1/2 |
| L1 ① | 5.63 (143) | 7.06 (179) |
| L2 ① | 7.20 (183) | 8.86 (225) |
| H2 | 4.38 (111) | 4.77 (121) |
| H1 | 1.10 (28) | 1.58 (40) |
| W | 1.77 (45) | 2.85 (72) |

① Manual override option MH adds .250", MS option adds .468" to each solenoid endcap.

| Optional Manual Operators | | |
|---------------------------|---|---|
| Add Suffix | | Description |
| MO |  | Push and turn to lock with flat head screwdriver slot |
| MI |  | Momentary push in with flat head screwdriver slot |
| MH |  | Momentary push in by hand |
| MS |  | Push and turn to lock by hand |

Const. Ref. 1

